

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEBRASKA

UNITED STATES OF AMERICA,

Plaintiff,

vs.

DANIEL STRATMAN,

Defendant.

4:13-CR-3075

FINDINGS ON LOSS  
CALCULATION

This case is before the Court with respect to the loss calculation for purposes of sentencing. The defendant pleaded guilty to one count of violating the Computer Fraud and Abuse Act (CFAA)—specifically, [18 U.S.C. § 1030\(a\)\(5\)\(A\)](#)—based on an intrusion into a protected computer system or systems that began in approximately May 2012. As directed by the Court in its Amended Order on Sentencing Schedule (filing [43](#)), the parties submitted a statement of uncontroverted facts (filing [50](#)), and a hearing was held at which evidence was adduced and submitted of losses allegedly incurred by the two primary victims in this case: the University of Nebraska<sup>1</sup> and the Nebraska State College System.

The loss calculation at issue here has two primary purposes. First, in determining the offense conduct, the offense level is increased based on the amount of the loss. [U.S.S.G. § 2B1.1\(b\)\(1\)](#). Second, in the case of an identifiable victim, the Court shall enter a restitution order for the full amount of the victim's loss. [U.S.S.G. § 5E1.1](#); *see also* [18 U.S.C. § 3663A\(a\)\(1\) and \(c\)\(1\)\(B\)](#). The Court recognizes that although the gross amounts of loss for sentencing purposes and loss for restitution purposes are often calculated in the same manner, the two determinations serve different purposes and thus may differ depending on the relevant facts. [United States v. Lange](#), [592 F.3d 902, 907 \(8th Cir. 2010\)](#). But as will be explained below, the Court finds that the loss that has been proven in this case is the same for both purposes.

The burden is on the government to prove the factual basis for a sentencing enhancement by a preponderance of the evidence. [United States v. Peroceski](#), [520 F.3d 886, 889 \(8th Cir. 2008\)](#). For purposes of [§ 2B1.1\(b\)](#), loss is calculated as the greater of the actual or intended loss. Actual loss is

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<sup>1</sup> The Court sees no reason to distinguish, for these purposes, between the University of Nebraska Central Administration and the University of Nebraska-Lincoln.

defined as the "reasonably foreseeable pecuniary harm that resulted from the offense." § 2B1.1 cmt. n.3(A)(i). And "reasonably foreseeable pecuniary harm" is further defined as that harm that the defendant knew, or under the circumstances, reasonably should have known, was a potential result of the offense. *Id.* cmt. n.3(A)(iv). Intended loss, by comparison, includes any "pecuniary harm that was intended to result from the offense," including harm that was "impossible or unlikely to occur." *Id.* cmt. n.3(A)(ii). Ultimately, this Court needs to make a "reasonable estimate of the loss." *Id.* cmt. n.3(C); *United States v. Rice*, 699 F.3d 1043, 1049 (8th Cir. 2012).

The government also has the burden to demonstrate the amount of loss for purposes of restitution by a preponderance of the evidence. 18 U.S.C. § 3664(e). Restitution is compensatory, not punitive, and in a fraud case, it is limited to the actual loss directly caused by the defendant's criminal conduct in the course of the scheme alleged in the indictment. *United States v. Chaika*, 695 F.3d 741, 748 (8th Cir. 2012). The amount of restitution cannot exceed the actual, provable loss realized by the victims. *United States v. Martinez*, 690 F.3d 1083, 1088 (8th Cir. 2012). Restitution may only be awarded for the loss caused by the specific conduct that is the basis of the offense of the conviction. *United States v. DeRosier*, 501 F.3d 888, 896 (8th Cir. 2007). And the causal connection between the defendant's acts and the victim's losses must not be unreasonably extended. *United States v. Spencer*, 700 F.3d 317, 323 (8th Cir. 2012). But for violations of the CFAA, the victim's "loss" may include "any reasonable cost to any victim, including the cost of responding to an offense, conducting a damage assessment, and restoring the data, program, system, or information to its condition prior to the offense, and any revenue lost, cost incurred, or other consequential damages incurred because of interruption of service[.]" 18 U.S.C. § 1030(e)(11).<sup>2</sup>

The losses at issue in this case involve the costs of investigating the defendant's intrusion into the victims' computer systems. There is, for instance, no evidence that the victims incurred meaningful costs *repairing* damage to their systems. Instead, the evidence relates to the substantial time and expense that the victims incurred investigating the breach after it was discovered, and in attempting to ascertain the scope of their exposure. The bulk of the costs are in four categories: hours worked by University information technology (IT) department workers in response to the breach;

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<sup>2</sup> To be clear: the Court does not view the CFAA definition of "loss" as meaningfully expanding the losses that can be appropriately calculated for purposes of sentencing or restitution. The statutory definition of "loss" contained in the CFAA, while more detailed and specific, is effectively consistent with the broader use of the term in § 2B1.1(b) and § 3664. See, *United States v. Janosko*, 642 F.3d 40, 41-42 (1st Cir. 2011); *United States v. Phillips*, 477 F.3d 215, 224-25 (5th Cir. 2007).

similar hours worked by State Colleges IT workers; the cost of investigative services provided by Fishnet Services, Inc., a third-party IT consultant hired by the University; and the cost of investigative services provided by Kroll Advisory Solutions, a third-party consultant hired by the State Colleges' insurance company.

The Court accepts, as a general proposition, that the costs of investigating the scope of an intrusion into a computer system may be losses for purposes of sentencing and restitution. *See*, § 1030(e)(11); *Janosko*, 642 F.3d at 41-42; *United States v. Batti*, 631 F.3d 371, 378-80 (6th Cir. 2011); *Phillips*, 477 F.3d at 224-25; *see also United States v. Stennis-Williams*, 557 F.3d 927, 930 (8th Cir. 2009) (holding that for purposes of restitution in a mail fraud case, "privately incurred investigative costs constitute foreseeable losses that are directly caused by a defendant's fraudulent conduct"). Such costs may be included when incurred by a private investigation conducted by the victim or consultants hired by the victim. *See*, *Batti*, 631 F.3d at 379; *Phillips*, 477 F.3d at 224. Such losses may also, in principle, include the expense of notifying those whose personal information was compromised by the breach. *See Phillips*, 477 F.3d at 224; *cf. Janosko*, 642 F.3d at 42.

But the costs incurred must be reasonable. *See Batti*, 631 F.3d at 379; *see also Janosko*, 642 F.3d at 41-42. The CFAA defines "loss" in terms of "reasonable cost," and it cannot be said that unreasonable expenses are either caused by the offense of conviction for purposes of restitution, *see Chaika*, 695 F.3d at 748, or reasonably foreseeable within the meaning of § 2B1.1.<sup>3</sup> The Court agrees with the defendant that part of the government's burden of proving loss for purposes of sentencing and restitution is showing that the costs incurred by the victims were *reasonably* incurred.

The Court begins with the easy part: the defendant has not objected to the University's Fishnet bills, with the exception of some reservations about whether some of those bills involved double counting. The Court has reviewed Fishnet's invoices (Exhibits 13 to 19) carefully and found that each line item was unique, and that the total matched that represented by the University in Exhibit 7. The Court therefore finds that the Fishnet bills represent losses for purposes of sentencing and restitution, totaling \$107,722.58.<sup>4</sup>

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<sup>3</sup> The Court notes that this case is within the realm of actual loss under § 2B1.1, not intended loss—the defendant did not intend to cause any losses to the victims. All of their costs were incurred investigating the breach, and the defendant did not intend the breach to be detected.

<sup>4</sup> To be clear—the Court also finds based on the evidence that Fishnet's costs, while substantial, were reasonable given the services performed, and that it was reasonable for the University to retain those services when it did, shortly after the breach, when the scope of the intrusion was still unclear.

The same cannot be said of the Kroll invoices. The government's witnesses—primarily University employees—were clear about why Fishnet was hired and what Fishnet's services eventually produced for the University. Kroll was initially retained to help the State Colleges, but soon they and their insurer agreed to share the Fishnet forensic analysis with the University. The lion's share of Kroll's billing—over \$308,000, as set forth in Exhibit 24—is attributed to notification services, *i.e.*, informing people whose personal information might have been compromised. But the Court cannot determine why that was so expensive for the State Colleges, or how it was determined that approximately 185,000 people needed to be notified.

The government has provided affidavits from two Kroll employees, and one employee of the insurer that hired Kroll, which generally describe the contents of Kroll's invoices and conclude that the services and expenses were fair and reasonable.<sup>5</sup> But the Court does not find those conclusory opinions persuasive. Kroll's forensic analysis (which was presumably cut short when Fishnet became the primary investigator) essentially concludes that there was no evidence of exfiltration or access to personal information from the PeopleSoft database, but it was hard to be sure. *See* Exhibit 28. The only apparent source for the number of people to be notified, 185,000+, is also in Exhibit 28—an "audit" that was conducted by Kroll "to re-mail any records that mailed in error." (Whatever that means.) The import of the audit, as the Court understands it after puzzling over it for a bit, seems to be that some of the 185,000+ client records were duplicated, and only 117,845 were actually unique. So in Exhibit 31, Kroll's employee witness talks about Kroll's services including "the facilitation of mailing letters to each of approximately 185,000 potential victims of the breach," but the only substantiation in the record for that number is an audit that contradicts it. In sum, the Court is left with considerable uncertainty about how many people the State Colleges actually needed to notify, how many actually were notified, and how the costs for

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<sup>5</sup> For the sake of completeness, the Court notes that those exhibits, and several others, were objected to by the defendant, primarily on grounds of foundation and relevance. The defendant's argument, generally summarized, is that the exhibits do not permit the defendant to adequately address the issue of whether the services and expenses were reasonable.

Although it generally agrees with the substance of the defendant's argument, the Court will overrule the objections—the Court finds that there is adequate foundation and relevance for the exhibits to be *admissible*. They are what they purport to be, and records of the invoices provided by third-party consultants, and hours spent working on the problem by the victims' employees, are at least *relevant* to the victims' losses. The Court views the defendant's argument as more effectively directed at the *weight* of the evidence—and as explained, the Court does not find the evidence to be particularly weighty.

doing so were determined. Given that uncertainty, the Court finds that the reasonability of those expenses has not been proven.

The Court has similar questions about the employee hours devoted to the intrusion by employees of the University and the State Colleges. No doubt an appropriate response was necessary—and in the immediate wake of the breach, "all hands on deck" might well have been warranted. But at some point, after the defendant was locked out (and quickly indicted), the actual depth of the intrusion would have been clear, and an all-out effort would no longer have been necessary. *Compare Batti*, 631 F.3d at 379. The record, as it stands, does not permit the Court to determine what the victims knew and when they knew it, nor does it permit the Court to compare the victims' knowledge with the intensity of their ongoing efforts related to the breach. The record also contains very little from which the Court could determine that the victims' employees performed with reasonable efficiency and were compensated at a reasonable rate.<sup>6</sup> The victims' calculations for costs attributed to employee hours consist of the time spent on tasks associated with the breach, multiplied by that employee's hourly wage. But, for instance, if the Court was awarding attorney fees, the Court would have to ask what tasks were performed, whether the number of hours spent on each task was appropriate, and whether the attorney's billing rate for performing the task was fair and reasonable. The Court does not see why similar questions should not be asked under these circumstances—and the Court cannot find the answer in the record.

It is also not entirely clear whether all those hours are attributable to the *defendant* for purposes of sentencing and restitution. For instance, the University's former information security officer testified that some of that time was spent implementing recommendations from the Fishnet report, and "cleaning up some of the incidents." He did testify that all the activities reflected in the government's evidence were "related to" the defendant's intrusion. But that may or may not be the same as "caused by" the defendant's intrusion.

A simple example will illustrate the point. A homeowner has a broken lock on her front door. A thief finds out and uses the vulnerability to enter the home and steal property. The losses from that crime include the value of the stolen property. They might even include investigating the crime. But they would not include repairing the lock, which was broken before the thief ever came along. The repair might be "related to" the theft, because the theft

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<sup>6</sup> To be clear—the Court is not criticizing the victims' employees, or suggesting that they are inefficient or overpaid. The Court would prefer to assume that they are all capable, and compensated appropriately. But the Court needs evidence, not assumptions.



called attention to the vulnerability. But the thief didn't break the lock, and wouldn't have to pay to fix it.

Similarly, the victims no doubt learned, from the defendant's intrusion, about vulnerabilities in their computer systems. But the defendant is not responsible for creating those vulnerabilities, and he isn't liable for the cost of fixing them—or, more to the point, those costs are not the result of the offense of conviction. It is hard for the Court to conclude, on the evidence presented, that over 3,600 hours of employee time was a foreseeable consequence of the crime. And from the evidence presented, the Court cannot parse out how much time the victims' employees spent securing the system from the defendant specifically, and how much time they spent addressing the vulnerabilities he had called to their attention. The victims' exhibits reflect dozens of employees spending thousands of hours on tasks that are mostly unclear from the record. The only evidence to connect most of those hours to the defendant is that they were recorded with a project billing code that was created in response to the breach, and that the employees were verbally instructed to use for "anything related" to the defendant's intrusion.

For instance, one of the government's primary witnesses—the University's former information security officer—was listed in the government's exhibits as having spent 351 hours on the project initiated by the defendant's breach. But he was unable to say specifically how long he continued to log time on the project, other than that his "best guess" was that he was working on the project through October. And there is even less evidence with respect to other employees and how they were spending their time—the summaries provided by the victims, and adduced by the government, simply total the hours worked by each employee between May 20, 2012, and June 4, 2013. The breach was detected by the University on May 23-24, 2012, and even if the Court was willing to presume that the hours spent on the project in the immediate wake of the breach were sufficiently connected to the defendant's crime (a fair presumption), there is no way for the Court to determine from the evidence how many hours were worked during that timeframe.<sup>7</sup> That, the Court finds, is insufficient evidence to prove *which* hours represent losses that can be causally connected to the defendant's crime for purposes of sentencing and restitution. The Court has no basis to estimate, or even guess, at how many hours would be attributable

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<sup>7</sup> And, the Court notes, the IT director at the University of Nebraska-Lincoln testified that he was only asked to begin tracking the time spent on the project about a week *after* the breach was detected—so, he asked all of the individuals involved to estimate their time retrospectively, "to the best of their recollection." Even if the Court knew where to draw a line, there would be an element of speculation involved in the number of hours worked for the week following the intrusion.

to the defendant—any attempt to pick a number would be unsatisfactorily arbitrary.

Finally, there is some evidence of other expenses—for example, the EnCase forensic analysis tool that the University purchased to help investigate the breach. While the Court has no particular reason to doubt those expenses, there is also little to establish that they were reasonable or necessary. It is also unclear whether the victims' purchases are of ongoing utility to them, which would preclude characterizing the entirety of those costs as "losses" for purposes of sentencing and restitution.

In sum, the Court finds that except for the Fishnet invoices, the evidence is not sufficient to prove that the victims' costs were "losses" for purposes of sentencing and restitution. The Court also finds that inquiring further into restitution would complicate or prolong the sentencing process to a degree that the need to provide restitution is outweighed by the burden on the sentencing process. *See*, 18 U.S.C. § 3663A(c)(3)(B); *United States v. Martinez*, 690 F.3d 1083, 1089 (8th Cir. 2012). The Court therefore exercises its discretion pursuant to § 3663A(c)(3)(B) and declines to award further restitution. The Court's experience with this case convinces it—and a cursory examination of the docket will demonstrate—that the issues presented by loss calculation have *already* complicated and prolonged the sentencing process. Were it not for the unavoidable need to make some reasonable approximation of the loss for purposes of the Sentencing Guidelines, the Court would not have ventured as far into the weeds as it already has. But at this point, the defendant's sentencing has been repeatedly continued at the request of the parties, the sentencing schedule has been repeatedly rescheduled at the request of the parties (and is about to be again on the Court's own motion), and the parties have been required to participate in a discovery process unusual for a criminal sentencing. The Court is convinced that the record as it stands is as much as can be expected from a criminal case, and that the complex issues of fact discussed above are too complicated to warrant further delay. *See Martinez*, 690 F.3d at 1089.<sup>8</sup>

### CONCLUSION

In sum, the Court finds that based on the evidence before the Court, the appropriate loss calculation figure, for purposes of sentencing and restitution, is \$107,722.58.<sup>9</sup> Obviously, the Court has fallen behind the Third

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<sup>8</sup> Whether the victims could recover more from the defendant, in a civil proceeding, is a matter the Court does not decide. *See, e.g.*, 18 U.S.C. § 1030(g).

<sup>9</sup> The Court is aware that under 18 U.S.C. § 3664, the probation officer is required to provide the University and State Colleges (and their respective insurers) with notice and an

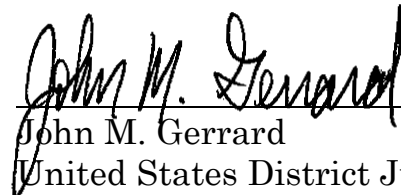
Amended Order on Sentencing Schedule (filing [58](#)), and after consulting with the probation officer, will set amended deadlines as set forth below.

IT IS ORDERED:

1. The amount of loss attributable to the defendant's crime, for purposes of determining the offense conduct and awarding restitution, is found to be \$107,722.58.
2. The probation office shall submit to the Court and counsel a final revised presentence report, with any changes necessitated by the Court's findings, on or before July 11, 2014.
3. Objections by counsel to the final revised presentence report (or to these findings) shall be filed on or before July 17, 2014.<sup>10</sup>
4. The Court's tentative sentencing findings shall be filed on or before July 21, 2014.
5. Sentencing shall remain scheduled for July 24, 2014.

Dated this 8th day of July, 2014.

BY THE COURT:

  
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John M. Gerrard  
United States District Judge

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opportunity to present evidence relevant to restitution. It is apparent from the evidentiary hearing, however, that those entities have been aware of these proceedings and cooperated extensively with the government in developing evidence of their losses. It is the Court's opinion that for purposes of restitution, the notice requirements of § 3664 and the Crime Victims' Rights Act, 18 U.S.C. § 3771, have been reasonably complied with. See *In re W.R. Huff Asset Mgmt. Co., LLC*, 409 F.3d 555, 564 (2d Cir. 2005).

<sup>10</sup> The defendant need not refile his motion for departure/variance (filing [37](#)) or objection to the presentence report (filing [38](#)) unless the defendant wishes to raise a new issue.